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2

**Cathodic and anodic protection against corrosion of long-distance trunk gas mains. S. Matšna (Praga, 1961, 82, 188-190).—** Corrosion of gas mains in urban districts may arise from stray d.c. from electric trams or railways, and in country districts from local electrochemical action. Protection in the former case is achieved by efficient insulation conforming to the regulations of the Czechoslovak Electrotechnical Ass. In country districts, cathodic or anodic protection is used; the methods employed are described.

H. TAUBER.

MATENA, S.

Electrical Engineering  
Abstracts, v. 56, June  
1953, Machines

2373. Direct measurement of the subtransient and transient direct-axis reactances of synchronous generators from short-circuit tests. S. Matena, *Elektrotech Obzor*, 41, No. 6, 265-271, (1952) in Czech.

This method consists essentially in connecting a known reactance to the terminals of the generator in parallel with a short-circuiting breaker. Oscillographs are taken during short-circuit tests on opening and closing this breaker and the transient and subtransient reactances calculated, on the basis of a simple formula, from the magnitudes of the impulse and steady-state currents. This method which also allows the measurement of the effect of various degrees of saturation on the reactances of the generator can be applied on the test-bed as well as during routine tests on installed machines. Oscillographs are shown and examples given.

MATENA, S.

621.317.322-81  
/3042. Investigation and indication of double earth connection in the field winding of a turbo-alternator with a cylindrical rotor. S. MATENA AND J. VADSKA. *Elektr. stroj. Obzor.* 43, No. 6, 307-10 (1954) in Czech. *et*

A single earth connection is of no danger to a turbo-alternator for it is unable to create electromagnetic asymmetry in the rotor on its own. However, an additional earth connection will eliminate in the slots some of the rotor coils and give rise in the air gap to unbalanced electromagnetic conditions between two coils which will cause severe vibrations. The distorted field of the eliminated coils will depress the amplitudes of the basic and of some of the odd harmonics of the normal symmetrical field, whereas the even harmonics, particularly the second, will become notably pronounced. The field winding of a turbo-alternator, excited while leaving the stator in no-load condition, will with a double earth connection develop radial forces (similar to those which may occur in squirrel-cage rotors under the influence of two subsequent harmonics) as well as forces tangential to the surface of the cylindrical rotor. An eccentrically positioned rotor will further increase these unbalanced forces. Conditions in an alternator under load, with a field winding having two earth connections, do not differ from the previous examples substantially.

1/2

①

*S. MATTEA*

This is caused by the undulating progress of magnetic flux which is a consequence of decreased flux above slots.

components  
the outer surface of the stator, to feed an oscilloscope for the investigation. By positioning two auxiliary coils at a displacement of 180°, one could feed a signalling relay and the other could operate a protective relay for a cut-out system of the alternator.

J. C. STARK

MATENA, S.

MATENA, S. Direct measurement of the swing and slip motion of a synchronous machine  
p. 538.

Vol. 45, No.11, Nov. 1956  
ELEKTROTECHNICKY OBZOR.  
TECHNOLOGY  
Praha, Czechoslovakia

So: East European Accessions, Vol. 6, No. 3, March 1957

MATEMA. Sh., doktor tekhn.nauk prof. (Chakhaevskaya Sotsialisticheskaya Respublika, Praga); GORAK, K., inzh.

Low-voltage net-type closed networks. Izv.vys.ucheb.zav.;energ.  
3 no.10:17-25 0 '60. (MIRA 1:11)

1. Predatsvlena kafedroy elektricheskikh sistem Moskovskogo  
ordena Lenina energeticheskogo instituta.  
(Electric power distribution)

MATENA, Stepan, prof., inz., dr., doktor technických ved; KOUT, Ladislav, inz.

Construction of the first 380/220 V network system in Prague and starting its operation. El tech obzor 51 no.4:145-151 Ap '62.

1. Ceske vysoke uceni technicke (for Matena). 2. RPR (for Kout)

MATENA, S., prof., inz. dr., doktor technických ved

The 19th Meeting of the International Conference on Large Electric  
Systems in Paris, May 16-26, 1962. El tech obzor 52 no.6:303-  
306 Je '63.

ACCESSION NR: AP5016641

CZ/0017/64/053/010/0539/0547

AUTHOR: Matena, S. (Professor, Engineer, Doctor of sciences)

TITLE: Faulty asynchronous run of turboalternators

SOURCE: Elektrotechnicky obzor, v. 53, no. 10, 1964, 539-547

TOPIC TAGS: electric power engineering, electric equipment

ABSTRACT: Presented is a theoretical and practical analysis of faulty asynchronous runs of alternators with cylindrical rotors. After investigating the reasons the author proves that the electric stress of the hoop surfaces as contacts may dangerously affect the mechanical strength of the hoop with possibly disastrous consequences. Three failures in Czechoslovak thermal electric power plants are described. Theoretical conclusions are supported by practical examples. Orig. art. has: 12 figures, 4 graphs, 8 formulas.

ASSOCIATION: CVUT

SUBMITTED: 7 Jun 64

ENCL: 00

SUB CODE: EE

NO REF SOV: 000

OTHER: 004

JPRS

Card 1/1

L 38765-56

ACC NR: AP6029706

SOURCE CODE: CZ/0017/65/054/006/0270/0278

AUTHOR: Matena, Stepan (Professor; Engineer; Doctor; Doctor of sciences)

ORG: none

TITLE: Transient effect in a DC shunt machine

SOURCE: Elektrotechnicky obzor, v. 54, no. 6, 1965, 270-278

TOPIC TAGS: direct current, electric shunt, magnet

ABSTRACT: The paper deals with the transient effect of the current in both windings of a DC shunt machine as the principal element of voltage control of a synchronous alternator. The investigation is undertaken on the simplifying assumption of a rectilinear shape of the magnetizing characteristic. Since both fundamental equations involve terms containing both currents only, the final stabilized distribution of the currents in the windings of the armature and the magnets is ascertained by the iteration method with exact results for both basic changes of the resistance in the circuits of the windings of the armatures and magnets. Orig. art. has: 8 figures and 50 formulas. [Based on author's Eng. abst.] [JPRS: 36,482]

SUB CODE: 09 / SUBM DATE: 20Jan65 / ORIG REF: 004

Card 1/1 H

UDC: 621.313.223.001

0918 0182

MATENA, V.

Hysteresis of the demagnetization factor of cylindrical rods. p. 401

Vol. 5, no. 4, July 1955  
CESKOSLOVENSKÝ CASOPIS PRO FYSIKU  
Praha, Czechoslovakia

So: Eastern European Accession Vol. 5, No. 4, 1956

MATEJKA, V.

The study of amelogenesis in the rat incisor. *Cesk. stomat.* 75  
no.3:190-197 My195.

1. Vyzkumny ustav stomatologickeho v Praze (reditel: prof. dr.  
J. Kostlar).

NOVAK, Josef, dr., akademik, prof.; PONCOVA, Vera, MUDr; MATENA, Vladimir,  
MUDr, Praha

Contribution to the form of indexes of dental caries. Cesk. stomat.  
no.3:86-96 June 54.

(DENTAL CARIES

index, improvement proposals)

FRANK, Stanislav; HODER, Josef; IPSER, Josef; MATENA, Vladimir; POCH, Robert

Medical apparatus and appliance. Cas. lek. cesk. 97 no.23-24:759-761  
6 June 58.

1. Gyn. por. odd. Thomayerovy nemocnice v Praze-Krci, prednosta prim.  
dr. S. Franz, I. chir. klinika KU, prednosta akademik A. Jirasek,  
Vyzkumny ustav balneologicky, reditel prof. dr. K. Prerovsky, Vyzkumny  
ustav stomatologicky, reditel doc. dr. J. Kostlan, internu klinika hyg.  
Fakulty, prednosta prof. dr. V. Jonas. St. F., Praha 12, Srobarova 23.

(APPARATUS,

prod. in Czech. (Cz))

MATENA, V.

Study of dentinogenesis in the incisor of the rat. Cesk. stomat.  
66 no.1:48-58 Ja '66.

1. Vyzkumny ustav stomatologicky v Praze (reditel prof. dr.  
J. Kostlan).

1. M. D. MATENIN
2. USSr (600)
4. bee Culture
7. My experience in controlling swarming. Pchelovodstvo 30 no. 1. 1953.

9. Monthly List of Russian Accessions, Library of Congress, April 1953, Uncl.

KOTKOWSKI, Stefan; MATENKO, Juliusz; WOJEWSKI, Alfons

Analytical methods and solubility of urinary calculi. Roczn. pom.  
akad. med. Swierczewski. 8:141-152 '62.

1. Z Zakladu Chemii Ogolnej Pomorskiej Akademii Medycznej Kierownik:  
doc. dr S. Kotkowski i z Kliniki Urologicznej Pomorskiej Akademii  
Medycznej Kierownik: doc. dr A. Wojewski.

(URINARY CALCULI) (SOLVENTS)

KOTKOWSKI, Stefan; MATENKO, Juliusz

Kinetics of peroxide oxidation of indigo carmine with  
pertungstenic acid. Prace matem przyrod Poznan 10  
no.2:51-63 '62.

1. Institute of General Chemistry, Medical Academy,  
Szczecin.

YATSINA, Yu. [Jasina, J.]; TISLER, V. [Tisler, V.]; GOMBACH, A. [Gombach, A.];  
MATEOVA, Ye. [Mateova, E.]

Glucose, lactate, and pyruvate metabolism in the kidneys of  
dogs in vivo. Fiziol.zhur. 57 no.11:1356-1362 N 1965.

(MIRA 1965)

1. Kafedra otkrnyy usbenka i kafedra normal'nyy i patologicheskoy fiziologii  
Meditsinskoy fakul'teta Universiteta imeni I.I. Shafarika, g. Krasnoy, Chexoslovakiya.

MATER, V.

Device for curing freshly laid concrete. Avt.dor. 25 no.8:26  
Ag '62. (MIRA 16:2)

(Pavements, Concrete)

PROCESS AND PROPERTIES INDEX

1ST AND 2ND EDITIONS

17

CA

Volumetric determination of nicotine as picrate. N. S. Drosov and N. E. Mal'inskaya. *Zhur. Anal. Khim.* 2, 17-20(1947).—Nicotine is pptd. as picrate and the excess picric acid is titrated with methylene blue soln. Steam-distill nicotine from the plant material. Neutralize to methyl red with 0.1 N acid, transfer to a 500-ml volumetric flask and make to vol. Mix 50 ml of soln with an equal vol. of 0.01 N picric acid or a smaller vol. of 0.05 N and keep for 1-2 hrs. at 0°. Filter through a fritted-glass filter, wash with 0.5 ml. of ice water. Dil filtrate to 200-500 ml., transfer 10-50 ml. into a separatory funnel, add 100-150 ml. of H<sub>2</sub>O and 1% by vol. of CCl<sub>4</sub> or CHCl<sub>3</sub>, and titrate with 0.001 N methylene blue soln with shaking the soln. after each addn. Add more org solvent if needed. At the end point the aq. layer is blue. M. Hoch

ABB-SLA METALLURGICAL LITERATURE CLASSIFICATION

MATERIALS INDEX

COMMON ELEMENTS

COMMON ABBREVIATIONS

SYMBOLS

UNITS

CROSS-REFERENCES

INDEXING

ALPHABETIC INDEX

NUMERICAL INDEX

MATERANSKAYA, N. P.

Chemical Sci.

"Investigation of the Initial Phases of the Process of Oxidized Spoiling of Edible Fat." Sub 1? Dec 51. Moscow Chemicotechnological Inst of the Meat Industry.

Dissertations presented for science and engineering degrees in Moscow during 1951.

SO: Sum. No. 480, 9 May 55

CA

Colorimetric determination of epihydrin aldehyde. N. Drazdov and N. Matevanskaya. *Moskovy Iud. N.S.S.R.* 22, No. 2, 30 2(1951). Method: To 1 ml. of sample in 2 ml. of ether, add 1 ml. of 12 N HCl and 2 ml. of 0.1% phloroglucinol in ether, shake, and heat in a boiling water bath for 1 min., then match the color of the aq. layer with a standard color scale. The standard colors are prepd. from a soln. of 0.1% ac.d. fuchsin in H<sub>2</sub>O and contg. 0.5 ml. 20% H<sub>2</sub>SO<sub>4</sub> per l. One tenth to 0.0 ml. portions of this soln. are made to 50 ml. to serve as the color scale. M. M. Piskur

1957

Chem A

27

... Rapid method for determination of the iodine number  
S. Dronov and N. Matrasovskaya. *Myslovaya Ind. S.S.S.R.*  
*S. R. 22, No. 4, 31-2(1951).* - The procedure is like that of  
Rosenmund and Kuhnheim (C. I. 18, 477) except that a  
smaller sample (0.1-0.2 g) of fat is used and reaction time  
is only 2 min. M. M. Piskun

1951

BA

C-2

3800. Colorimetric determination of epiphyrin aldehyde formed during the oxidation of fats. N. S. Dvinskoy and N. I. Matveevskaya (J. anal. Chem., USSR, 1962, 7, 74-77).—The influence of various factors on the colorimetric determination of epiphyrin aldehyde based on Fiske's reaction (red coloration with phloroglucinol) is studied. To determine the aldehyde in fats and fatty acids, 1 g. is dissolved in 2 ml. of ether in a stoppered graduated tube, treated with 1 ml. of conc. HCl and, after shaking, with 2 ml. of 0.1% phloroglucinol in ether, and then heated on a boiling water-bath for exactly 1 min. The colour of the water layer is then compared with a series of standards prepared from 0.1% fuchsin in water containing 0.5 ml. of 20% H<sub>2</sub>SO<sub>4</sub> per tube. The colour obtained by diluting 0.05 ml. to 20 ml. with acidified water matches that obtained in the reaction with 0.018 mg. of epiphyrin aldehyde in 1 ml. and each additional 0.1 ml. of fuchsin solution corresponds to an additional 0.180 mg. of the aldehyde. With Lovibond units (red units — 0.00) give 100 x % of epiphyrin aldehyde. The method is unsuitable for highly coloured fats. (I. S. Naitza.)

27

CA

Determination of the carbonyl compounds of fat. N. S. Drouzov and N. P. Materanskaya, *Mysl'skiy Ind. S.S.S.R.* 23, No. 3, 73-5(1952). The  $\text{NH}_4\text{OH}$  reaction with a carbonyl group (1) was applied to measurement of changes in fat during storage. I-free alc. was prepd. by refluxing 1000 ml. of 95% alc. with caustic and distg., discarding the first 50 ml. of distillate, and allowing 50 ml. to remain as still residur. A 0.2 N soln. of  $\text{NH}_4\text{OH}$  was prepd. by mixing, in order,  $\text{NH}_4\text{OH} \cdot \text{HCl}$  2 g., distd.  $\text{H}_2\text{O}$  40 ml., I-free alc. 400 ml., and 0.5 N  $\text{KOH}$  300 ml. and filtering off the crystals of  $\text{KCl}$  pptd. To det., brat 0.4-1.0 g. of fat or fatty acid sample with 25 ml. of  $\text{NH}_4\text{OH}$  reagent 60 min. on a steam bath, cool to room temp., and titrate with 0.1 N  $\text{HCl}$  soln. A blank detn. is run simultaneously. The results are reported in % of I oxygens per 100 g. of sample: I oxygen % =  $[(A - B) \times 0.1 \times 0.16] \times 100 / \text{sample wt.}$ , where  $A$  and  $B$  are blank and sample titrations, resp. When run on acids or acid samples the detn. must be corrected for the amt. of acidity in the original. M. M. Piskur

DROZDOV, N.S.; MATERANSKAYA, N.P.

Oxidative spoilage of fat. Myasnaya Ind. S.S.S.R. 24, No.2,  
69-72 '53. (MLRA 6:4)  
(CA 47 no.15:7795 '53)

МАТЕРАНСКАЯ, Н. П.

Chem Abs v4 1  
1-25-54  
Joola

✓ Oxidation changes in lard in the process of production. N. S. Drozdov, N. P. Materanskaya, and N. Trofimova (Moscow Chem-Technol Inst. Meat Ind.). *Mясная Ind. S.S.S.R.* 24, No. 4, 82-5(1953).—This is principally a review and discussion of past work. The course of the acid no., peroxide no., and epihydrinaldehyde, and oxy-acid contents of 2 lards during production are graphically presented. M. M. Piskur

MATERANSKAYA, N. P.

USSR.

1945. Determination of the fatty-acid composition of lard triglyceride. N. S. Dvornov and N. P. Materanskaya. *Dokl. Akad. Nauk SSSR*, 1945, 51, 23-25; *Referativnyi Zh. Khim.*, 1954, Abstr. No. 40,082. — Kaufmann's method of calculating the content of saturated acids, oleic and other olefinic acids, linoleic and other highly unsaturated acids in triglycerides is shown to be applicable to lard. It is as accurate as other methods of fat analysis. E. Hayes

①

MATERANSKAYA, N.R.

Oxidation changes of lard with various methods of its production. N. R. Materanskaya  
*Myslo* 1951, 5: 661951; *C.A.*  
48, 901c.—The deterioration change occurring in lards processed (rendered) by the horizontal vacuum autoclave method was compared with those of lards rendered by the Anufrieva centrifuge machine (cf. Liberman, *C.A.* 48, 4859A). The max. temp. attained in both methods was 80°. Free fatty acids, sphingolipids, peroxide value, i no., and spondee development are graphically presented. Min. hydrolysis of the fat occurs with centrifuge rendering.  
M. M. Piskur

MATERANSKAYA, N.P.

MATERANSKAYA, N.P.

3

Determination of oxygenated acids in fat. B. S. Drozdov  
and N. P. Materanskaya. *Byulleten' Vsesoyuznogo Nauchno-Issledovatskogo Instituta Khimicheskoy Tekhnologii*, No. 3, 1964, 1023. The method is based on the reaction

$\text{-CH}_2\text{CH}_2\text{ + HCl(dry) = -CH(OH)CH}_2\text{Cl}$ . A 0.2N HCl soln. in ether is made by drying ether with  $\text{CaCl}_2$  and then with Na, and adding dry HCl. Weigh 0.4-0.8 g. sample of fatty acids or 0.8-1.0 g. sample of fat in a 250-ml. flask, add 5 ml. abs. ether and 15 ml. 0.2N HCl soln. in abs. ether, let stand 3 hrs. at room temp., add 25 ml. neutral 96% alc. and 0.5 ml. phenolphthalein indicator soln., and titrate residual HCl with 0.1N aq. soln. of NaOH. Run a blank. Oxygenated acids in % =  $\frac{(B - (A - D)) \times 0.1 \times 0.016 \times 100}{\text{wt. of sample}}$ , wherein A is ml. of 0.1N NaOH used in titrating test material, B is ml. 0.1N NaOH used for the blank test, and D is the ml. 0.1N required to neutralize the acidity of the original sample. M. M. Piskur

①  
MET

MATERANSKAYA N.P.

3

Oxidative changes in fats during continuous processing  
N. S. Drozdov and N. P. Materanskaya, *Myslovoye Izh.*  
*S.S.S.R.* 20, No. 5, 1958, pp. 49, 51-52. C.A. 49, 841d.  
Effect of the rendering, drying, centrifuging, and solidifying  
stages in a continuous rendering system on the development  
of fatty acidity and peroxide value of lard was investigated.  
The temps. in the above-named stages were, resp.: 110,  
100, 90°, and cooler temp. Stability was most adversely  
affected by the duration of the drying stage. The drying  
stage should be limited to min. duration. M. M. P.

179 200

(1)

MATERANSKAYA, N

Oxygen-free processing of pork fat. N. Materanskaya.  
*Mysnaya Ind. S.S.S.R.* 28, No. 1, 48-51(1957) Cf. C.A.  
 50, 2991k. — Rendering pork fat in a CO<sub>2</sub> atm. instead of in  
 air yielded a product entirely free of oxidation, comparable to  
 the fat processed in a N atm. O-free pork fat obtained in a  
 CO<sub>2</sub> atm. can be stored for a long period of time (for 20  
 days and 8 months at 40 and 18°, resp.) without forming  
 peroxides or carbonyls or changing its I no. The following  
 lab. expt. substantiates the results obtained under industrial  
 conditions. Pork fat was rendered at 80-80° in CO<sub>2</sub>, N,  
 and air atms. and then stored in sealed containers corre-  
 spondingly under CO<sub>2</sub> (I), N (II), and air (III); the control  
 fat was also stored under N gas (IV). After 20-day storage  
 at 40-50°, these fat samples showed following chem. char-  
 acteristics (in the order I, II, III, and IV): peroxide no.,  
 0, 0, 0.48, and 0.36 mg. O/g.; epoxy groups, 0, 0, 4.4, and  
 2.8 mg. O/g.; I no., 40.8, 40.8, 38.0, and 39.0 (original I  
 no. of the fat 40.8); acid no., 0.8, 0.8, 0.8, and 0.8; and  
 the color reaction with neutral red, yellow, yellow (no  
 rancid taste of the fat), pinkish red (rancid), and pink. By  
 processing pork fat in CO<sub>2</sub> atm., refrigerating of the fat can  
 be entirely eliminated.

E. Wierbicki

AUTHORS: Drozdov, N. S., Maleranskaya, N. P. SOV/156-58-3-30/52

TITLE: The Absorption of Oxygen in the Initial Stage of the Auto-Oxidation of Oleic Acid (Pogloshcheniye kisloroda v nachal'nykh stadiyakh avtookisleniya oleinovoy kisloty)

PERIODICAL: **Nauchnyye** doklady vysshey shkoly, Khimiya i Khimicheskaya tekhnologiya, 1952, Nr 3, pp. 536 - 539 (USSR)

ABSTRACT: The absorption of oxygen in the auto-oxidation of oleic acid and the entire course of the oxidation process were investigated. An apparatus for the determination of the absorption of oxygen at a corresponding constant concentration of oxygen in the gaseous phase was used in all experiments on auto-oxidation. The absorption of oxygen by oleic acid takes place very violently even at 15 - 20°C and in the dark after 10 - 20 minutes. Above 20°C the primary oxygen absorption is not related to a change of the composition of oleic acid. The curves of the oxygen absorbing power of oleic acid at 20,30,40 and 60°C were plotted. With an increase in temperature an increase of the oxygen absorption occurs and the character of the absorption curves changes. These results point to a different intensity and type

Card 1/2

The Absorption of Oxygen in the Initial Stage of the  
Auto-Oxidation of Oleic Acid

SOV/156-50-3-11/52

of single reactions in the initial stage of the auto-oxidation  
at various temperatures. There are 2 figures and 6 references,  
1 of which is Soviet.

ASSOCIATION:

**Kafedra** organicheskoy khimii 2-go Moskovskogo  
gosudarstvennogo meditsinskogo instituta (Chair of Organic  
Chemistry at the Moscow State Medical Institute II)

SUBMITTED: November 30, 1957

Card 2/2

5(3)

SCV/63-4-1-24/31

AUTHORS: Drozdov, N.S., Materanskaya, N.P.

TITLE: On the Nature of Active Oxygen Determined Iodometrically in the Products of Self-Oxidation of Fatty Acids and Fats (O prirode aktivnogo kisloroda, opredelyayemogo iodometricheski v produktakh avtookisleniya zhirnykh kislot i zhirov)

PERIODICAL: Khimicheskaya nauka i promyshlennost', 1959, Vol 4, Nr 1, pp 133-134 (USSR)

ABSTRACT: The iodometric determination of active oxygen in the products of self-oxidation shows higher values on adding mineral acids than in a medium of acetic acid. The accumulation of active oxygen in the presence of mineral acids proceeds simultaneously with the accumulation of epoxy-compounds. The iodometric method used in the presence of mineral acids determines not only the oxygen in the peroxides, but also a part of the epoxide oxygen. There is 1 graph and 6 references, 4 of which are Soviet, 1 English and 1 German.

Card 1/2

SOV/63-4-1-24/31

On the Nature of Active Oxygen Determined Iodometrically in the Products of Self-Oxidation of Fatty Acids and Fats

ASSOCIATION: Kafedra organicheskoy khimii 2-go Moskovskogo gosudarstvennogo meditsinskogo instituta imeni N.I. Pirogova (Chair of Organic Chemistry of the Second Moscow State Medical Institute imeni N.I. Pirogov)

SUBMITTED: July 8, 1958

Card 2/2

L. G. B. C., I. S.; CONFIDENTIAL, I. P.

Measure of auto-catalytic products giving the Krebs reaction.  
Z. N. V. M. C. 5 no. 1:355-356 '59. (I. I. 14:2)

1. Z-oy Moskviy Gosudarstvennyy nauchnyy institut imeni  
M. I. Pirogov.  
(Moscow) (Moscow, U.S.S.R.) (Leningrad, U.S.S.R.)

DROZDOV, N.S.; MATERANSKAYA, N.P.

Relation between the unsaturation and autoxidation rate of mixtures  
of triglycerides of natural fats. Dokl. AN SSSR 137 no.3:603-605  
Mr '61. (MIRA 14:2)

1. Vtoroy meditsinskiy institut im.N.I.Pirogova. Predstavleno  
akademikom B.A.Kazanskim. (Lard)  
(Glycerides)

KOTANIA, Wladyslaw; MATERIK, Hubert

Ophthalmological studies in acromegaly. *Klin. oczna* 35 no.1:  
55-61 '65.

1. Z Kliniki Chorob Oczu (Kierownik: prof. dr. med. M. Madroszkiewicz)  
i z Kliniki Chorob Wewnetrznych w Katowicach Slaskiej Akademii  
Medycznej w Zabrze (Kierownik: prof. dr. med. J. Japa).

ORECHKIN, L.M.; MATERIKIN, Yu.V.

Reducing the moisture content of the tap hole plug ball in  
blast furnaces. Metallurg 7 no.7:12-13 J1 '62. (MIRA 15:7)

1. Vsesoyuznyy institut ogneuporov.  
(Blast furnaces--Equipment and supplies)

MATERIKINA, Ye.I., agronom.

Supplementary pollination of buckwheat. *Zemledelie* 4 no.5:127  
My '56. (MIRA 9:8)

(Buckwheat) (Bees)

~~MATERIKINA, Ye. I.~~ agronom.

Controlling weeds in millet fields. Zemledelie 4 no.7:109-110  
J1 '56. (Millet) (Weed control) (MIRA 9:9)

**MATERIKOV, M.P.**

Stalinsk tin and polymetallic deposits. Sov.geol. no.26:  
42-59 '47. (MIRA 8:8)  
(Stalinsk (Khabarovsk Territory)--Tin ores)  
(Stalinsk (Khabarovsk Territory)--Ore deposits)

MATERIKOV, M.P.

Occurrence of cassiterite in the region of the Sikhote-Alin'  
Range. sov.geol. no.26110-114 '47. (MLRA 8:8)  
(Sikhote-Alin' Range--Cassiterite)

MATERIKOV, M.P.; PAVLOVSKIY, A.B.

Magmatic sources of mineralization and the relative depth of deposits of cassiterite-quartz and cassiterite-sulfide formations. Sov.geol. 2 no.9:86-93 S '59. (MIRA 13:2)

1. Vsesoyuznyy institut mineral'nogo syr'ya (VIMS).  
(Ore deposits)

BETEKHTIN, A.G.; VOL'PSON, F.I.; GENKIN, A.D.; DUBROVSKIY, V.N.; YEROFEYEV,  
B.N.; KONSTANTINOV, R.M.; MATERIKOV, M.P.; SOKOLOV, G.A.; STRAKHOV,  
N.M.; TATARINOV, P.M.; TOMSON, I.N.; SHADLUN, T.N.; SHATALOV, Ye.T.;  
SHIPULIN, F.K.

Oleg Dmitrievich Levitskii; obituary. Geol. rud. mestorozh. no.2:  
3-6 Mr-Ap '61. (MIRA 14:5)

(Levitskii, Oleg Dmitrievich, 1909-1961)

S/081/62/000/008/016/057  
B166/B101

AUTHOR: Materikov, M. P.

TITLE: A new genetic type of industrial fluorite deposits

PERIODICAL: Referativnyy zhurnal. Khimiya, no. 8, 1962, 105, abstract  
8061 (Sb. "Mineral'n. syr'ye". M., no. 2, 1961, 37-46)

TEXT: The new deposits occur in Lower Paleozoic carbonaceous heavily-dislocated strata faulted with granite massifs. The largest accumulations of fluorite are located at the contacts with the apical parts of the intrusions. The granites are greisenized and intersected by streaks of various composition, including fluorite streaks with various quantities of micaceous minerals. They also occur in regions of scarning. The main elements in the ores are F, Ca, Si, Al, Mg, Fe, K, Na; the secondary elements are Mn, Sr, Pb, Zn, Sn, Ti, B, Cu, S; impurities are V, Ga, Bi, In, As, Ag, Mo, Sb, Be, Ni, Cr, P, Ba, Co, Ge, W, Y, Yb, Tb, Th, Ce, Sc, Zr, Cd, Nb, Ta. The most important features of the micaceous fluorite type deposits are: (1) their appearance in combination with deposits of Sn and rare metals in the region of the development of carbonaceous strata broken

Card 1/2

S/081/62/000/008/016/017  
B166/B101

A new genetic type of...

through by granites and enriched with F; (2) the association of micaceous fluorite ores, bedded in limestones in the roof of the intrusions, with quartz-topaz greisens in the granite, and with scarns formed in the initial stage of postmagmatic mineralization; (3) the high initial temperature and moderate depth of deposition of the ores; (4) the predominantly substitution deposition of the ores, with wide development of geis at the ore-formation site. [Abstracter's note: Complete translation.]

Card 2/2

ABDULLAYEV, Kh.M.; ALYAVDIN, V.F.; AMIRASLANOV, A.A.; ANIKEYEV, N.P.;  
ARAPOV, Yu.A.; BARSANOV, G.P.; BELYAYEVSKIY, N.A.; BOKIY, G.P.;  
BORODAYEVSKAYA, M.B.; GOVOROV, I.N.; GODLEVSKIY, M.N.; SHEGLOV, A.D.;  
SHAKHOV, F.N.; SHILO, N.A.; YARMOLYUK, V.A.; DRABKIN, I.Ye.;  
YEROFEYEV, B.N.; YERSHOV, A.D.; IVANKIN, P.F.; ITSIKSON, M.I.;  
KARPOVA, Ye.D.; KASHIN, S.A.; KASHKAY, M.A.; KORZHINSKIY, D.S.;  
KOSOV, B.M.; KOTLYAR, V.N.; KREYTER, V.M.; KUZNETSOV, V.A.; LUGOV,  
S.F.; MAGAK'YAN, I.G.; MATERIKOV, M.P.; ODI NTSOV, M.M.; PAVLOV, Ye.S.;  
SATPAYEV, K.I.; SMIRNOV, V.I.; SOBOLEV, V.S.; SOKOLOV, G.A.; STRAKHOV,  
N.M.; TATARINOV, I.M.; KHRUSHCHOV, N.A.; TSAREGRADSKIY, V.A.;  
CHUKHROV, F.V.

In memory of Oleg Dmitrievich Levitskii; obituary. Sov.geol. 4  
no.5:156-158 My '61. (MIRA 14:6)  
(Levitskii, Oleg Dmitrievich, 1909-1961)

MATERIKOV, M.P.

Characteristics of tin deposits in carbonate-bearing regions.  
Sov.geol. 4 no.9:96-107 S '61. (MIRA 14:11)

1. Vsesoyuznyy nauchno-issledovatel'skiy institut mineral'nogo  
syr'ya.

(Tin ores)  
(Rocks, Carbonate)

**MATERIKOV, M.P.**

Genetic groups and formations of tin ore deposits. Sov. geol.  
7 no.11:36-47 N '64. (MIRA 18:2)

1. Vsesoyuznyy nauchno-issledovatel'skiy institut mineral'nogo  
syr'ya.



1. 7748-66 EWT(d)/EWT(1)/EPA(s)-2/T IJP(c) GG

ACC NR: AP5025894

SOURCE CODE: UR/0057/65/035/010/1817/1824

AUTHOR: <sup>44,55</sup> Vasil'yev, Ye.N.; <sup>40,55</sup> Materikova, L.B.

ORG: <sup>44,55</sup> ~~Moscow~~ Power Engineering Institute (Moskovskiy energeticheskiy institut) <sup>59</sup> <sub>13</sub>

TITLE: Excitation of a dielectric body of revolution

SOURCE: Zhurnal tekhnicheskoy fiziki, v. 35, no. 10, 1965, 1817-1824

TOPIC TAGS: mathematic method, integral equation, <sup>16,44,55</sup> Fredholm equation, induced current, dielectric property, dielectric waveguide, axisymmetric body

<sup>21,44,55</sup> ABSTRACT: The integral equations given by C.Müller (Mathematischen Annalen, 123, 345, 1951) for the equivalent electric and magnetic surface currents induced on a dielectric body by an external alternating field are simplified for the case where the dielectric body is axially symmetric, and a technique for solving them numerically is presented. The simplification is accomplished by expanding all relevant quantities in <sup>26,44,55</sup> Fourier series in the azimuth; there results a set of <sup>16,44,55</sup> integral equations for the different Fourier components of the equivalent surface currents. The Fourier components of the Green's function are expressed as series of Hankel functions and as series of hypergeometric functions; these series are suitable for numerical computation in different ranges of the argument (the distance between the observation and integration points). Results of numerical calculations of the equivalent currents in-

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UDC: 538.3

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I. 7748-66

ACC NR: AP5025894

induced on the surfaces of a dielectric sphere and a dielectric cylinder with plane ends by an oscillating dipole located on and directed along the symmetry axis are presented graphically and discussed as examples. The spherical problem was also solved analytically, and good agreement is shown between the analytic and numerical solutions. With the aid of the described mathematical technique it is possible to compute the induced equivalent current distribution on the surface of any dielectric body with axial symmetry. Orig. art. has: 34 formulas and 4 figures.

SUB CODE: EM, EC/ SUBM DATE: 21Jan65/ ORIG REF: 007/ OTH REF: 002

Card

2/3

MATERIKOVA, R. B.

Some reactions of fenchone with organomagnesium and lithium compounds. A. N. Nesmeyanov, V. A. Sazonova, and R. B. Materikova (M. V. Lomonosov State Univ., Moscow). *Izv. Akad. Nauk S.S.S.R., Otdel. Khim. Nauk* 1955, 888-92; cf. *C.A.* 37, 2724. Treatment of 53.3 ml. filtered soln. of PhMgBr (0.3395 g./ml.) with 15.2 g. fenchone gave 1.2 g. ppt. which, washed with Et<sub>2</sub>O and dried under N, contained 10.68% Br and 8.8% Mg; thus the complex is  $MgBr_2 \cdot MgBrOH \cdot 2C_{10}H_{16}O \cdot Et_2O$  (I). (cf. Leronde, *C.A.* 3, 2875). It liquefies on exposure to air, yields Et<sub>2</sub>O and fenchone with aq. NH<sub>4</sub>Cl, and with molten Ph<sub>2</sub>CO gives fenchone and no Ph<sub>2</sub>COH; similar treatment with Bz<sub>2</sub> gave fenchone and benzilic acid. Slow passage of CO<sub>2</sub>-free air over the surface of PhMgBr soln. (from 6 g. Mg and 30 g. PhBr in Et<sub>2</sub>O) gave in 2 days 8.4 g. cryst.  $MgBr_2 \cdot MgBrOH \cdot 2Et_2O$ , which loses Et<sub>2</sub>O in contact with H<sub>2</sub>O. This complex (8.55 g.) shaken 30 hrs. with 11.4 g. fenchone in Et<sub>2</sub>O gave I. PhLi (from 5 g. Li and 60 g. PhBr) in Et<sub>2</sub>O stirred 0.5 hr. with 10 g. fenchone and treated with H<sub>2</sub>O yielded 70% phenylfenchyl alc., bp 167-8°. Similarly, *p*-MeC<sub>6</sub>H<sub>4</sub>Li gave 69% *p*-tolylfenchyl alc., bp 177°, m. 47-53°. G. M. Kosolapoff

elenc

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PM

*11/12/1956*  
NBSMEYANOV, A.N.; KRUGLOVA, N.V.; MATERIKOVA, R.B.; TOLSTAYA, T.P.

Diarylbromonium and diarylchloronium salts. Zhur. ob. khim. 26 no.8:  
2211-2218 Ag '56. (MIRA 10:11)

1. Institut elementoorganicheskikh soyedineniy AN SSSR i Moskovskiy  
gosudarstvennyy universitet.  
(Halogen compounds)

*Meterkova, R. B.*

<sup>7</sup> <sup>7</sup>  
Diarylborane and diarylchloronium salts, A. N.  
Nesmeyanov, N. V. Kravlova, R. B. Meterkova, and T. P.  
Tolstaya, *J. Gen. Chem. U.S.S.R.*, 20, 2175-8 (1950) (Eng-  
lish translation).—See *C.A.* 51, 4074c. D. M. R.

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S/026/61/000/011/001/001  
D038/D113

5 3700

AUTHORS: Kochetkova, N.S., Materikova, R.B., and Slinkin, A.A.

TITLE: Ferrocene

PERIODICAL: Priroda, no. 11, 1961, 98-100

TEXT: This article deals with the structure and application of various aromatic compounds, particularly ferrocene. Scientists from many countries, including A.N. Nesmeyanov of the USSR, are mentioned in connection with the development of ferrocene - a diamagnetic organometallic compound with a dipole moment equal to 0. X-ray analyses have shown that, in the ferrocene molecule, the iron atom is in the mean position between the cyclopentadienyl radicals lying in parallel planes, the carbon atoms of the upper ring being located above the gaps between the carbon atoms of the lower ring. Two horizontal five-membered rings with aligned CC and CH bonds rotate in parallel planes around the central iron atom, which is similarly connected with all ten carbon atoms. Nickelocene, cobaltocene and other similar compounds are likewise constructed. In the last few years, a sufficiently accurate idea of the electronic structure of these compounds was originated. In investigating the chemical properties of ferrocene, it can be readily seen that, in many reactions, the metal does not expose itself in the molecule and the reaction passes along the

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Ferrocene

3/25/61  
DOBS/D11?

molecule's organic part. Like benzene, ferrocene is capable of substitution reactions of its own hydrogen atoms. Not all the metallocenes are as resistant to oxidation as ferrocene; nickelcene, cobaltocene and other "cenes" are resistant only in the form of cations which do not induce reactions characteristic of aromatic compounds, whilst in the form of neutral compounds they exist only in very pure nitrogen and are very sensitive to oxidation. Cyclopentadienyl rings can be connected with the central atom of the metal not only covalently with the formation of multicentric orbits, but also with the ion bond. Dicyclopentadienylmanganese is so constructed. Many so-called compound metallocenes are now known, which have only one cyclopentadienyl radical in the molecule, the second ring being composed of CO, NO groups, etc, containing  $\pi$ -electrons. Similar to metallocenes are a class of "areny", where the central atom of the metal is connected with two benzene rings, parallel to one another - for example, dibenzolchrome. Discussing the various applications of ferrocene and other metallocenes, the author states that these compounds are still in too early a stage of development to talk of their wide application; however, "cenes" and other substances are used as antidetonators. Several are anti-burn substances - in their presence metals are more resistant to the effect of fire and high temperatures. Ferrocene is used in the redox polymerization of styrol, whilst a similar titanium compound is the component part of a catalyzer for obtaining polythene. Soluble ferrocene derivatives can be used for pharmaceutical pur-

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Ferrocene

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D038/D113

poses. Data have been collected on heat-resistant ferrocene derivatives containing both iron and silicon atoms in their molecules. The chemistry of benzene, naphthalene, anthracene and other aromatic systems is being developed for similar purposes. In the very near future, new aromatic systems will come into being; the differences in their properties will depend not only on the difference in the substitution products but also in the central atoms of the metals which constitute the heart of the molecule. There are 6 figures

ASSOCIATION: Institut elementoorganicheskikh soyedineniy AN SSSR /Moskva/ (Institute of Elemental Organic Compounds of the AS USSR/Moscow/)

Card 3/3

20359

S/020/61/136/005/017/032  
B103/B208

5.3700

2209. 1273, 1164

AUTHORS:

Nesmeyanov, A. N., Academician, Kochetkova, N. S.,  
and Materikova, R. B.

TITLE:

Acetyl derivatives of pentaethane diferrocene

PERIODICAL:

Doklady Akademii nauk SSSR, v. 136, no. 5, 1961, 1096-1098

TEXT: The authors correct the composition of the substance previously termed "diferrocenyl ethane" by them (Ref. 1) (melting point 135°C). Actually, this is a mixture of isomers: diferrocenyl ethane-1,1 (melting point 147-149°C), and diferrocenyl ethane-1,2 (melting point 192-192.5°C, small quantity). This mixture was obtained by reacting ferrocene with 1,2-dichloro ethane in the presence of anhydrous  $AlCl_3$  (in addition to pentaethane diferrocene, PEDF). The authors were able to isolate the isomers by a modified treatment of the reaction products, i.e., after chromatographic purification on aluminum oxide in benzene - n-heptane mixture (1:1). Diferrocenyl ethane-1,2 is identical with that obtained by A. N. Nesmeyanov and I. I. Kritskaya (Refs. 4, 5), and

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20359

S/020/61/136/005/017/032  
B103/B208

Acetyl derivatives of pentaethane ...

A. N. Nesmeyanov, E. G. Perevalova, and Yu. T. Ustynyuk (Ref. 6). The authors further correct the confusion (Refs. 4,5,9,10) of the condensation product of formaldehyde with ferrocene with a substance of the

structure  $C_{10}H_8Fe \begin{array}{c} \diagup CH_2 \\ \diagdown CH_2 \end{array} C_{10}H_8Fe$  (see Ref. 11). Actually, this

condensation product was 1,2-diferrocenyl ethane. The authors acylated PEDF (Ref. 2) with acetic anhydride in the presence of 85% phosphoric acid, and obtained monoacetyl PEDF. This is a yellow powder, well soluble in alcohol, acetone, and benzene, slightly soluble in water and ether. Acylation by acetyl chloride in the presence of anhydrous aluminum chloride in methylene chloride (as the solvent) gave diacetyl PEDF and several polyacetyl PEDF. The former is an orange-yellow powder, and was recrystallized from n-heptane. The authors found that these acylation results confirm the structure of PEDF previously assumed by them. N. A. Chumayevskiy studied the infrared spectra of the afore-mentioned acetyl derivatives. They disclosed a carbonyl group, and a free

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B103/B208

Acetyl derivatives of pentaethane ...

ferrocene ring in monoacetyl PEDF. Diacetyl PEDF also contains the carbonyl group, but its two acetyl groups belong to two different rings of PEDF. The presence of two non-substituted rings in PEDF is thus thought to be confirmed. Both PEDF and its acetyl derivatives are amorphous, and have no distinct melting point. On heating, they gradually darken, and soften at 100°C. The heating curve taken with Kurnakov's ПK-55 (PK-55) pyrometer up to 200°C reveals neither exothermal nor endothermal effects. V. M. Kozhin and Ye. I. Yarembash are thanked for thermographic measurements. Yu. Yu. Samitov determined the spectra of nuclear magnetic resonance, which indicate an absence of methyl groups in PEDF. There are 1 figure, 1 table, and 11 references: 6 Soviet-bloc and 5 non-Soviet-bloc.

ASSOCIATION: Institut elementoorganicheskikh soyedineniy Akademii nauk SSSR (Institute of Elemental-organic Compounds, Academy of Sciences, USSR)

SUBMITTED: November 9, 1960

Card 3/3

5

15 8114 2209  
24.3600 (1035, 1138, 1482)

3/020/61/137/006/013/020  
23854  
B103/B217

AUTHORS:

Nesmeyanov, A. K., Academician, Korshak, V. V., Corresponding Member AS USSR, Vovodskiy, V. V., Corresponding Member AS USSR, Kochetkova, N. S., Sosin, S. L., Materikova, R. B., Bolotnikova, T. N., Chibrikov, V. M., and Bazhin, N. M.

TITLE:

Synthesis and some optical-magnetic properties of polyferrocenes

PERIODICAL:

Doklady Akademii nauk SSSR, v. 137, no. 6, 1961, 1370-1373

TEXT: The authors studied the magnetic properties of ferrocene derivatives: 1) of the polyferrocenylenes (Table 1, nos. 1-6), 2) the polydiisopropylferrocene (Table 1, nos. 7-8), 3) the polymethano- and 4) the polyethanopolyferrocenes (Table 1, nos. 9-13). They were synthesized by: A) Polyrecombination. To 1) and 2). 1 mole ferrocene (or of its diisopropyl homolog) was treated with 1 mole tertiary butyl peroxide in nitrogen atmosphere at 200°C. 1) and 2) are assumed to be formed as follows: the Butoxyl and methyl radicals formed during peroxide decomposition separate the hydrogen from ferrocene (or the  $\alpha$ -hydrogen). The radicals thus formed

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Synthesis and some ...

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B103/B217

recombine and form linear 1) or 2), easily soluble in benzene. An insoluble polymer (Table 1, nos. 5-6) with a two- or tridimensional network structure is formed simultaneously. The conversion of ferrocene to high-molecular products amounted to 25%. Nos. 1-3 have a softening temperature of 290-300°C and are a dark-red powder, whereas nos. 5-6 had their softening temperature at about 400°C and were light-yellow. B) Polyalkylenation of ferrocene by methylene chloride and 1,2-dichloroethane in the presence of anhydrous aluminum chloride. Aluminum chloride solution in 50 ml of dihalogen alkane was added gradually to 40 g ferrocene dissolved in 250 ml dry dihalogen alkane. The mixture was stirred for 6 hr at the boiling temperature of the solvent. The next day, 10 g aluminum chloride in 25 ml dihalogen alkane were added and treated for 6 hr as above. The mixture was decomposed by ice and HCl and treated with sodium sulfite. The obtained 3) and 4) were well soluble in benzene, differed, however, by their solubility in ether. Table 1 shows the molecular weights, the always equal g-factor and the magnetic characteristics of all substances produced. The decomposition temperature of 9-13 was 115-120°C. All substances are amorphous powders, nos. 9 and 10 light-yellow, no. 11 grey-brown. Nos. 10 and 11 are of a chemical composition similar to that of no. 9 (pentaethanodiferrocene).

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B103/B217

Synthesis and some ...

They consist possibly of 2 and 4 molecules similar to the latter, connected by ethane bridges. 4-5 methylenes in the molecule of nos. 12 and 13 belong to 2 ferrocene radicals. They do not contain halogen. The infrared spectra of nos. 9-13 have frequencies within the range 1000-1100  $\text{cm}^{-1}$ . To 1). Derivatives 1) having a  $\pi$ -conjugation between the ferrocene links give a signal the electron paramagnetic resonance (e-p-r), similarly to the poly-aromatic hydrocarbons. This cannot be explained by the presence of a corresponding quantity of the oxidized form of the ferricinium cation. Table 1 shows that also polymers in which the ferrocene links are separated by the  $-\text{CH}_2-\text{CH}_2-$  group give an e. p. r. signal. It is known that the delocalization of the unpaired electrons between the two phenyl rings is not prevented by this group. In the substances described here, which give an e p. r. signal, this signal is the smaller, the smaller the number of ferrocene links is. This signal vanishes in 2). Polymers with a low molecular weight give no e. p. r. signal in the solution (benzene), but in solid state. This is explained by the fact that the intramolecular interactions cause in solid state a conjugation of the adjacent polymer molecules. This causes for its part an e. p. r. signal. All polymers

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Synthesis and some ...

giving this signal show a single symmetrical line of the e. p. r. of the Lorenz type. The 1) obtained from the reaction A yields a wide e. p. r. line of 120-160 oersteds, its width being dependent on the polymer structure. This line becomes broader on reducing the measuring temperature. Its width is changed most considerably in low-molecular polymers. The authors believe the nature of the measured signals to be unclarified, they cannot maintain that the number  $N$  of the unpaired electrons per 1 member, determined by a comparison with the standard, corresponds to their actual number.  $N$  may, however, be a certain characteristic of the magnetic properties of the system (nos. 2-4).  $N$  reaches an anomalous size in the insoluble polymer no. 5. This is assumed to be connected with a collective effect of the ferromagnetic type. The ultraviolet (UV-) spectra of 1) dissolved in n-octane, which give an e. p. r. signal in solid state, differ from the ultraviolet spectra of such that give no signal in solid state. In the first case the UV-spectrum agrees completely with that of ferrocene dissolved in  $CCl_4$ . It was proved for these spectra (Ref. 7) that the charge transfer takes place here under formation of an ion pair  $Fe^+CCl_4^-$ . On the contrary, the UV-spectrum of such 1) that give no e. p. r. signal is similar

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B103/B217

Synthesis and some ...

to that of ferrocene in a neutral solvent (n-octane), i. e. under conditions under which the charge is not transferred. Finally, the authors point out that their results concerning the UV-spectra apparently confirm the "pseudoferrromagnetism" of the polynucleotides and of the polyaromatic hydrocarbons (Refs. 5 and 8). There are 1 figure, 1 table, and 8 references: 7 Soviet-bloc and 1 non-Soviet-bloc. The only reference to English-language publication reads as follows: J. C. D. Brand, Ref. 7: Trans. Farad. Soc., 53, 894, 1957.

ASSOCIATION: Institut elementoorganicheskikh sovedineniy Akademii nauk SSSR  
(Institute of Elemental-organic Compounds of the Academy of Sciences, USSR)

SUBMITTED: December 20, 1960

Legend to Table 1. I) Current number, 1-4) linear polyferrocenylene, 5-6) insoluble polyferrocenylene, 7) polydiisopropylferrocene, linear, 8) like 7, insoluble, 9-11) condensation products of ferrocene with Di-1,2-chloroethane, 12-13) with methylene chloride, 14) ferricinium cation. II) Substance, III) molecular weight, IV) g-factor, V-VI) line width, oversted

Card 5/65

NESMEYANOV, A.N., akademik; RUBINSHTEYN, A.M.; SLCNIMSKIY, G.L.; SLINKIN,  
A.A.; KOCHETKOVA, N.S.; MATERIKOVA, R.B.

Magnetic susceptibility of polyalkane-polyferrocenes and polyferro-  
cenylenes. Dokl. AN SSSR 138 no.1:125-126 My-Je '61.  
(MIRA 14:4)

1. Institut elementoorganicheskikh soedineniy AN SSSR.  
(Ferrocene--Magnetic properties)

NESMEYANOV, A.N., akademik; KURSANOV, D.N.; SETKINA, V.N.; KISLYAKOVA, N.V.;  
KOCHETKOVA, N.S.; MATERIKOVA, R.B.

Hydrogen isotope exchange of cyclopentadienylmanganetricarbonyl.  
Dokl. AN SSSR 143 no.2:351-353 Mr '62. (MIRA 15:3)

1. Institut elemento-organicheskikh soyedineniy AN SSSR. 2. Chlen-  
korrespondent AN SSSR (for Kursanov).  
(Hydrogen--Isotopes)  
(Cyclopentadiene)

NESMEYANOV, A.N., akademik; KOCHETKOVA, N.S.; MATRIKOVA, R.B.

Scission of cyclopentadienyl compounds of metals by  
bromine and potassium hypobromites Dokl. AN SSSR 147  
no.1:113-116 N '62. (MIRA 15:11)

1. Institut elementoorganicheskikh soyedineniy AN SSSR.  
(Organometallic compounds)  
(Cyclopentadiene) (Bromine)

NESMEYANOV, A.N., akademik; DVORYANTSEVA, G.G.; KOCHETKOVA, N.S.;  
MATERIKOVA, R.B.; SHEYNKER, Yu.N.

Properties and structure of dicyclopentadienylmercury. Dokl.  
AN SSSR 159 no.4:847-850 D '64 (MIRA 18:1)

1. Institut elementoorganicheskikh soedineniy AN SSSR.

NESMEYANOV, A.N., akademik; MATERIKOVA, R.B.; KUCHEKOVA, N.S.; TSURGOZEN, L.A.

Salts of 1,1'-dialkylcobalticinium. Dokl. AN SSSR 160 no.1:137-138  
Ja '65. (MIRA 18:2)

1. Institut elementoorganicheskikh soedineniy AN SSSR.

NESMEYANOV, A.N.; YUR'YEVA, L.P.; MATERIKOVA, R.B.; GETNARSKI, B.Ya.

Stability of some ferricinium salts. Izv. AN SSSR. Ser. khim. no.4:  
731-733 '65. (MIRA 18:5)

1. Institut elementoorganicheskikh soyedineniy AN SSSR.

KURSANOV, D.N.; SETKINA, V.N.; BARANEISKAYA, N.K.; DVORYANTSEVA, G.G.  
MATERIKOVA, R.B.

Isotopic exchange of hydrogen atoms in cyclopentadienyl rings  
of cobalticinium compounds. Dokl. AN SSSR 161 no.4 847-850 Ap  
1965, MIRA 12:87

1. Chlen-korrespondent AN SSSR (Dr Kursanov).

NESMEYANOV, A.N., akad.; KOCHETKOVA, N.A.; MATERIKOVA, R.P.

Acetyl derivatives of pentaethanodiferrocene. Dokl. AN SSSR 136  
no.5:1096-1098 F '61. (MIRA 14:5)

1. Institut elementoorganicheskikh soyedineniy AN SSSR.  
(Iron)

PIOTROWSKI, Zygmunt; MATERLIK, Hubert

Kidney diseases with selective functional lesions of the renal.  
Polski tygod. lek. 14 no.28:1316-1321 13 July 59.

1. (Z I Kliniki Chorob Wewnętrznych Śląskiej Akademii Medycznej;  
kierownik: prof. dr Jozef Japa)  
(KIDNEY DISEASES)

PIOTROWSKI, Zygmunt; MATERLIK, Hubert

Osseous disorders during the course of chronic renal insufficiency.  
Polski tygod.lek. 15 no.52:2007-2010 26 N '60.

1. Z I Kliniki Chorob Wewnętrznych Sl. A.M. w Zabrsu; kierownik:  
prof.dr Jozef Japa.

(PYELONEPHRITIS compl)  
(HYDRONEPHROSIS compl)  
(RICKETS RENAL)

MATERLIK, Hubert

Myocardial damage in trichinosis. Polski tygod. lek. 16 no.25:  
948-950 19 Je '61.

1. Z I Kliniki Chorob Wewnętrznych Śląskiej A. M.; kierownik: prof.  
dr Jozef Japa.

(TRICHINOSIS pathol) (MYOCARDIUM pathol)

ROMANOWSKI, Bohdan; MATERLIK, Hubert

Radiological bone changes in acromegaly according to observations  
on 44 cases. Endokr. pol. 13 no.6:621-640 '62.

1. Zakład Radiologii Śląskiej AM w Zabrze p.o. Kierownik: dr med.  
B. Romanowski I Klinika Chorob Wewnętrznych Śląskiej AM w Katowicach.  
Kierownik: prof. dr J. Japa.  
(ACROMEGALY)

MATERLIK, Hubert; PIOTROWSKI, Zygmunt

Behavior of glomerular filtration in 34 acromegalic patients. *Endocr.*  
*pol.* 14 no.5:415-419 '63.

1. I Klinika Chorob Wewnetrznych Sl. A.M. Kierownik: prof. dr J. Japa.

POLAND

MATERLIK, Hubert, GLOWINSKI, Mieczyslaw, and SMOK, Jan;  
First Clinic of Internal Diseases (I Klinika Chorob Wewnetrz-  
nych), Sl.AM [Slaska Akademia Medyczna, Silesian Medical  
Academy] in Katowice (Director: Prof. Dr. med. Jozef JAPA)  
and the First Clinic of Obstetrics and Gynecology (I Klinika  
Poloznictwa i Chorob Kobietych), Sl.AM in Zabrze (Director:  
Prof. Dr. med. Wojciech STARZEWSKI (Deceased))

"Gynecological and Hormonal Disturbances in Women with  
Acromegalia. Report of 29 Cases."

Warsaw, Polski Tygodnik Lekarski, Vol 18, No 39, 23 Sep 63,  
pp 1434-1438

Abstract: [Authors' English summary modified] Authors stu-  
died 29 cases of acromegaly, developed during pregnancy or  
immediately after delivery, before and after irradiation of  
the hypophysis. They describe the characteristic, as well  
as varying accompanying symptoms, and the effect of radia-  
tion and spontaneous cure on them. Additional therapy with  
hormones gave very good results. There are 23 references:  
9 Polish, 2 German, and 12 Western.  
1/1

EXCERPTA MEDICA S7C 18 Vol 3/1 Cardio. Dis. Jan 59

218. *Some unusual anatomical findings in periarteritis nodosa* Über einige ungewöhnliche anatomische Befunde bei der Periarteriitis nodosa. MATERNA A. and MADAR Z. Staatskrankenh., Opava, Troppau, ČSR Zbl. allg. Path. path. Anat. 1957, 97 5-6 (292-301) Illus. 5

In 7% of the 200 cases of extensive periarteritis nodosa published in the literature and studied for concomitant venous ectasia this latter phenomenon was found. A similar finding was obtained in 2 personal cases (man of 42, woman of 50), in which the ectasia involved capillary vessels in the cellular tissue round the adrenal glands, kidneys and sciatic nerves as well. In agreement with Vogler's theory, these changes are interpreted as consequences of passing of blood from the narrowed arteries through the arteriovenous anastomoses into veins and capillaries (*Fortschr. Röntgenstr.* 1953, 79, 354). Some of the venous dilatations may also be due to a venous process of the type of periarteritis nodosa, viz. periphlebitis nodosa. The second case described was, moreover, characterized by marked increase of connective tissue within the periportal areas, with invasion of connective tissue septa into the hepatic lobules. These changes were demonstrated in 11% of the literature and interpreted as periarteritic hepatic cirrhosis.

Kucsko - Vienna (V, 6, 18)

MARAN, Bohuslav, akademik, laureat statni ceny; KAUT, Vl., inz.;  
SVRICOVA, S., MUDr.; TUSL, M., MUDr., C.Sc.; RABA, Jan.;  
MATERNA, Jan, inz.; KLIMECEK, Rostislav; BETTELHEIM, Jan, inz.;  
HALA, Eduard, doc., inz., dr.; UHER, L., inz.; KORDIK, E.;  
ERDOS, Emerich, doc., inz., dr.; VOSOLSOBE, Jan, doc., inz., dr.;  
NADENIK, O., inz.; HRUDKA, J.; HOSTALEK, Zdenek, inz., dr.;  
RADL, K., inz.; PEKAREK, Vl., MUDr.; BLISTAN, J., inz.; STORCH, O.  
inz.

A national conference on protection against chemical fumes  
from electric heat plants; a summary of reports. Energetika Cz  
11 no.2:109-111 F '61.

GASHEK, M.; LENGEROVA, A.; MATERNOVA, E.

Analysis of the role of blood cells in experimental investigations  
on failure of skin homotransplantation in warm-blooded animals.  
Fol.biol., Praha 1 no.5:319-320 Oct 55.

1. Biologicheskiy institut CHSAN, eksperimental'naya biologiya  
i genetika, Praga.

(SKIN TRANSPLANTATION, experimental,  
eff. of erythrocyte suspension in chick embryo on  
homografts)

(ERYTHROCYTES,  
eff. of erythrocytic suspension on skin homografts in  
chick embryo)

HASEK, Milan; LEJNEKOVÁ, Alena; MATĚJČIKOVÁ, Eva

Analysis of the role of blood cells in experimental overcoming of intolerance to cutaneous homografts in warm-blooded animals. Cesk. biol. 4 no.9:564-565 Oct 55.

1. Biologický ústav CSAV, experimentální biologie a genetika Praha.

(ERYTHROCYTES,

in exper. skin transpl., role in overcoming of intolerance to homografts)

(SKIN TRANSPLANTATION, experimental,

erythrocytes in overcoming of intolerance to homografts)

COUNTRY : CZECHOSLOVAKIA  
CATEGORY : General problems of Pathology. Immunity  
ABST. GROUP. : REBiol., No. 12 1958, No. 56213  
AUTHOR : Blasek, M., Lengrova, A., Hajer, J., Maternova, L.  
ISS. :  
TITLE : The Role of Cells in the Process of Apposition  
ORIG. PUB. : Ceskosl. Biol., 1955, Vol.4, no.10, 627-630  
ABSTRACT : no abstract

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MATERNOVA, E.

Effect of intra-embryonic injections of blood from another species  
in the formation of antibodies. II. Reaction in ducks, geese,  
and guinea hens. p. 5.  
Vol 5, no. 1, Jan. 1956  
CESKOSLOVENSKA BIOLOGIE  
Czechoslovakia

SOURCE: EEAL, Vol 5, no. 7, July 1956

MATERNOVA, Vera (Jablonec nad Nisou)

On the origin of jewelery. Sklar a keramik 12 no.9:274-275  
S '62.

MATERNOWSKA, Wladyslawa

Multiple sensitization to antibacterial drugs. Gruzlica 31  
no.12:1251-1255 D'63.

1. Z Kliniki Ftizjatrycznej AM w Krakowie. Kierownik: prof.  
dr. S.Hormung.

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MATERNOWSKI, M. - Rolnik Spoldzielca. Vol. 8, no. 29 July 1955 Warszawa

Wholesale warehouses. p. 41

SO: Monthly list of East European Accessions List, (EEAL), LC, Vol. 4, No. 11  
Nov. 1955, Undl.

*Industry Practice*

MATERNY, M.

S

Steel treatment in topogas converters. M. Materny.  
(Przeegląd Odlewnictwa, 1952, 2, 1, 6-16). (In Polish).  
Various aspects of steelmaking in sub-blown converters are  
discussed. Y. C.

MATERNY, MIKULAS

E-2

Czechoslovakia / Analytical Chemistry.  
Analysis of Inorganic Substances.

Abs Jour: Ref. Zhur - Khimiya No. 2, 1958, 4323

Author : Materny Mikulas

Title : Determination of Sulfuric Acid in Technical Lactic Acid.

Orig Pub: Chem. Zvesti, 1957, 11, No. 3, 157-161

Abstract: Results are cited in regard to the comparative study of the determination of sulfuric acid in technical lactic acid (1). In the determination of H<sub>2</sub>SO<sub>4</sub> in (1) by the method of Berl-Lunge, to decrease the solubility of sulfates the use of acetone instead of C<sub>2</sub>H<sub>5</sub>OH is recommended. A rapid method for the indirect polarographic determination of H<sub>2</sub>SO<sub>4</sub> is described. 20 ml. of the

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with a solution of AgNO<sub>3</sub> in 1N NH<sub>4</sub>OH) and 10 ml. of 1N NH<sub>4</sub>OH. To the resulting solution is added: 1 ml. of a 0.5% solution of gelatine, 3 ml. of 10<sup>-3</sup>M diamond fuchsine and the solution is made

APPROVED FOR RELEASE: 06/14/2000. The polarogram is taken  
CIA-RDP86-00513R001032820013-1"

Card 2/3

Analysis of Inorganic Substances.

Abs Jour: Ref. Zhur - Khimiya No. 2, 1958, 4323

in a Kalousk vessel with a Hg<sub>2</sub>SO<sub>4</sub> electrode. The maximum error is 1.2-0.4 mg. of H<sub>2</sub>SO<sub>4</sub> per 100 ml. of (1).

Card 3/3

MATERNYKH, L.F.

USSR

Determination of palladium as the thiocyanate complex with the application of nonaqueous solvents. B. S. Przhval'skiy, V. I. Shlenskaya, and L. P. Maternykh. *Vestnik Mosk. Univ.* 9, No. 8, Ser. Fiz.-khem. i biolog. Nauk No. 4, 71-8 (1954). Colorimetric detn. of Pd is described in either pure solns. of Pd salts or in the presence of Fe, Co, Pt(IV), and Ir(IV). The detn. is based on the red complex  $[Pd(SCN)_4]^{2-}$  (cf. C.A. 47, 4789c; *Bull. Acad. Sci. USSR Div. Chem. Sci. Ser. B*, 1954, 13, 11, 388 (1954)). The complex is extd. with BuOH or iso-AmOH at pH below 5 and the detn. is made at 436 m $\mu$ , with sensitivity to 2  $\gamma$  per ml. with relative error of 2.5% in the concn. range of 0.2-0.9 mg. Pd. Addn. of 2 ml. satd. Na<sub>2</sub>HPO<sub>4</sub> prevents interference of Fe. If Co is present, a blue complex is formed. A filter, which permits light of wave length 436 m $\mu$  to pass through, is used for the satisfactory detn. of Pd. Pt(IV) does not interfere because the PtCl<sub>6</sub><sup>2-</sup> ion is not extd. with iso-AmOH. In the presence of IrCl<sub>4</sub><sup>-</sup>, the addn. of excess KSCN or NH<sub>4</sub>SCN prevents interference. If all the elements are present (Pd, Fe, Co, Pt, Ir) the use of 2 ml. Na<sub>2</sub>HPO<sub>4</sub> causes too high results for Pd; in such cases an excess of Na<sub>2</sub>HPO<sub>4</sub> eliminates the difficulty. G. M. Kosolapoff

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MATEL NYKH, L.F.

USSR/ Agriculture - Plant physiology

Card 1/1 Pub. 22 - 45/51

Authors : Dadykin, V. P.; Shalitskaya, V. D.; and Maternyykh, L. F.

Title : Effect of soil temperature on the amine nitrogen content in plants

Periodical : Dok. AN SSSR 101/2, 367-369, Mar 11, 1955

Abstract : Chemical analysis of various plants showed that the low temperature of the soil in the zone of the root hinders the nitrogen flow to the plant and also obstructs the synthesis of nitrous substances. The plant organism is saturated with absorbed nitrogen. Seven USSR references (1938-1954). Table; drawing.

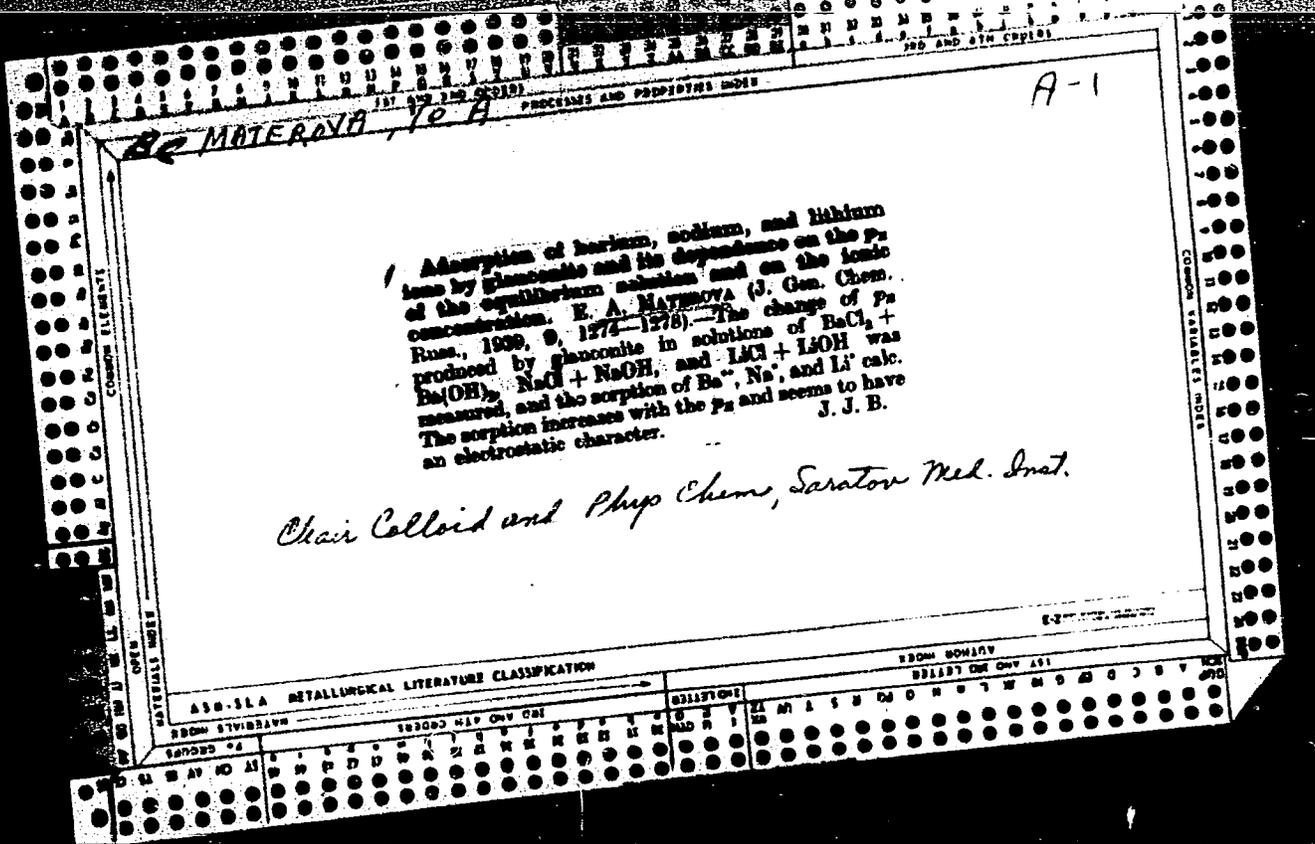
Institution : Acad. of Sc., USSR, Yakutsk Branch

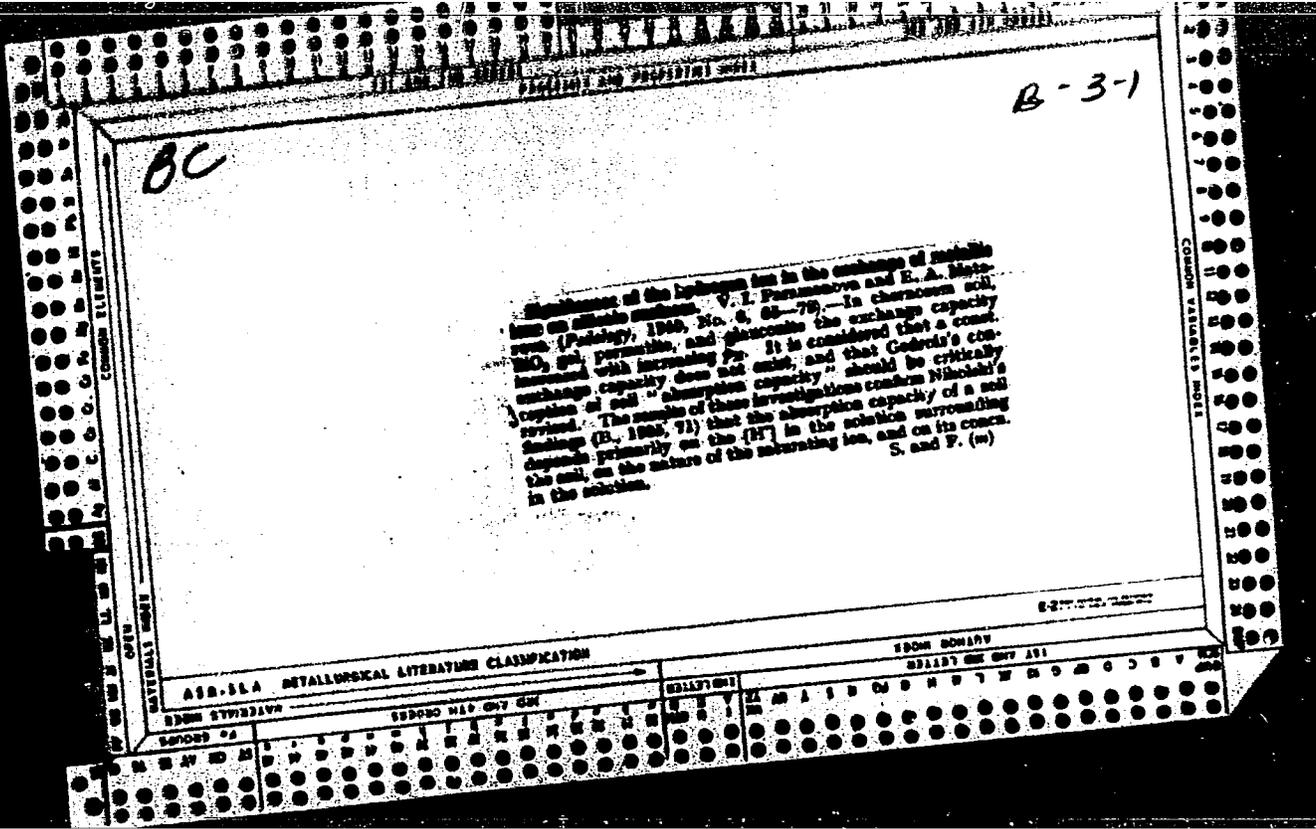
Presented by: Academician A. L. Kursanov, December 17, 1954

POLUKHIN, P. I., prof., doktor tekhn. nauk; FEDOSOV, N. M., prof.;  
KRUPIN, A. V., kand. tekhn. nauk; MATEROV, V. A., inzh.;  
SHILKOV, B. N., inzh.; MAKSIMOV, B. M., inzh.

Increase in width during rolling with drawing dies. Sber. Inst.  
stali i splav. no.40:100-106 '62. (MIRA 16:1)

(Drawing(Metalwork))





MATEROVA, YE A

NIKOL'SKIY, B.P.; BITEPAZH, Yu.A.; MATEROVA, Ye.A.

Physical and chemical study of ion exchange in glauconite. Part 1.  
Glauconite exchange capacity. Uch.zap.Len.un. no.108:138-143 '49.  
(MIRA 10:3)

(Glauconite) (Ion exchange)